EE432 Monetary Theory and Policy

Lecture 14 Modern monetary policy and the challenges

Dr. Chamadanai Marknual

Faculty of Economics, Thammasat University

Semester 1/2021

Outline

- The Traditional Channels: Interest Rates and Exchange Rates
- The Challenges Modern Monetary Policymakers Face

Chapter 23

Modern Monetary Policy and the Challenges Facing Central Bankers

The Traditional Channels: Interest Rates and Exchange Rates

The Traditional Channels: Interest Rates and Exchange Rates

- **Easing of monetary policy** - a *decrease* in the *target nominal interest rate*, which ***lowers the real interest rate*** - leads to a **depreciation of the dollar.**
- The ***less valuable dollar***:
  - **Drives up** the **cost of imported goods** and services, reducing imports from abroad, and
  - **Makes export goods** and services **cheaper**, so foreigners will buy more of them.

The Traditional Channels: Interest Rates and Exchange Rates

- The **interest-rate channel** is ***not*** very ***powerful***.
- Data suggest that the **investment** component of total spending is **not sensitive to interest rates**.
- While a ***small change in the interest rate*** does change the cost of external financing, it does **not** have much **effect on investment decisions**.

The Traditional Channels: Interest Rates and Exchange Rates

- The **impact of *short-term* interest rates** on ***household decisions*** is **modest**.
- The problems is that *people's decisions to purchase cars or houses* depend on ***longer-term* interest rates** rather than the *short-run target rate.*
- *Household consumption decisions* will only *change* to the extent that the **target interest rate *affects* long-term interest rates**.

The Traditional Channels: Interest Rates and Exchange Rates

- The **policy-controlled interest rate** is just *one of many factors* that *shift the demand and supply* for the dollar on ***foreign exchange markets***.
- The **traditional channels** of ***monetary policy transmission*** are **not** very **powerful**.
- Yet, evidence shows that **monetary policy** is **effective**.
- **Something else** must be ***amplifying*** the **impact of monetary policy changes** on ***real economic activity.***

Bank-Lending and Balance-Sheet Channels

Bank-Lending and Balance-Sheet Channels

- **Banks** are *essential* to the ***operation of a modern industrial economy***.
- **Banks** are also the **channel** through which ***monetary policy is transmitted*** to the economy.
- To understand monetary policy changes completely, we ***look at*** the **impact** of **policy changes** on **banks and bank lending**.

Banks and Bank Lending

- ***Borrowers*** do not have *access to capital market financing* - ***must go through banks***.
- When ***banks stop lending***, **borrowers** simply can **not obtain financing**.
- By ***altering*** the **supply of funds *to the banking system***, policymakers ***can affect*** **banks' ability** and **willingness to lend**.
  - The **bank-lending channel** of ***monetary policy transmission.***

Banks and Bank Lending

- An **open market purchase** has a ***direct impact*** on the **supply of loans**.
- **Financial regulators** can ***also*** influence **bank-lending practices**.
- **Changes in financial regulations**, will have an ***impact*** on the ***amount of bank lending***.
- **Credit conditions** typically ***tighten*** in *recessions* and ease in booms.

Firms' Balance Sheets and Household Net Worth

Firms' Balance Sheets and Household Net Worth

- The **balance-sheet channel** of *monetary policy transmission* works because ***monetary policy*** has the **direct influence** on the **net worth of potential borrowers**.
  - An *easing of monetary policy* **improves *firms' and households'* balance sheets**, *increasing* their ***net worth*** and *reducing* their ***credit risk premium***.
  - ***Increases*** in ***net worth*** *reduce* the problems of *moral hazard* and *adverse selection*.
    - This *lowers* information *costs of lending* and ***allows borrowers*** to ***obtain financing*** *more easily*.

Firms' Balance Sheets and Household Net Worth

How does ***monetary policy expansion*** *improve* borrowers' ***net worth***?

1. ***Expansionary policy*** *drives up* ***asset prices***, *increasing* the *value of firms* and the *wealth* of *households*.
2. ***Lower interest rates*** *reduce* the ***burden of repayment*** of *current loans of borrowers*.

Firms' Balance Sheets and Household Net Worth

- At **lower interest rates**, a person with *a variable rate loan* ***enjoys*** **lower interest payments.**
  - The ***percentage of person's income*** that is ***devoted to loan payments*** will be **lower**.
  - *As **interest rates fall**, the **supply of loans increases**.*
- **Information services** are central to ***banks' role*** in the *financial system*.
  - They help to *address the problems* of **adverse selection** and **moral hazard**.

Firms' Balance Sheets and Household Net Worth

- **Inferior information** leads to an ***increase*** *in* ***adverse selection***.
- This then:
  - ***Reduces bank lending***,
  - ***Lowers investment***, *and ultimately*
  - ***Depresses the quality of aggregate output demanded***.

Firms' Balance Sheets and Household Net Worth

- The **channels of monetary policy transmission** depend on the ***structure of the financial system.***
- ***If banks*** are ***unimportant sources of funds*** for firms and individuals, ***the bank-lending channel*** is **not** ***tremendously important***.
- Though ***technology*** *has made the processing of increasing amount of* ***information*** *easier* and *cheaper*, it seems **unlikely to solve** the problems of **adverse selection** and **moral hazard**.

Asset-Price Channels: Wealth and Investment

Asset-Price Channels: Wealth and Investment

- When the **interest rate *moves*, *so do* stock prices.**
  - This ***relationship*** is *referred to* the ***asset-price channel*** of **monetary policy transmission**.
- The **lower the interest rate**, the *higher the present value* is and the **higher the stock price**.

Asset-Price Channels: Wealth and Investment

- When ***policymakers*** *reduce their interest-rate target,* it drives the **mortgage rate *down***.
  - ***Higher demand*** for ***residential housing,*** *driving up* the ***prices of existing homes***.
- **Stock and property prices** affect both *individual* ***consumption*** *and business* ***investment***.
  - ***Higher stock*** and ***real estate prices*** mean an ***increase in wealth***.
  - *An increase in wealth means* ***higher consumption***.

Asset-Price Channels: Wealth and Investment

- As **stock prices *rise***, firms find it ***easier to raise funds*** by **issuing new shares**.
- As financing become *less expensive,* **more investments *become profitable***.

Financial Crisis and the Transmission of Monetary Policy

Financial Crisis and the Transmission of Monetary Policy

- The ***crisis of 2007-2009*** *intensified* fundamental problems of **asymmetric information** that *affect* the **provision of credit** in a modern economy.
- The ***widespread losses*** at intermediaries and the ***heightened uncertainty*** *about* the *damage suffered* by ***specific intermediaries*** **reduced confidence.**

Financial Crisis and the Transmission of Monetary Policy

- Funding **liquidity *dried up***.
- *Households' and nonfinancial firms'* **net worth *fell*** substantially, ***reducing*** their ***ability to borrow,*** *so* they ***cut spending***.
- The result of all this was a **destabilizing feedback loop** between ***worsening economic prospects*** and the ***deterioration of financial conditions*** that ***influence spending***.

Financial Crisis and the Transmission of Monetary Policy

- When the **policy transmission mechanism** is **obstructed**, ***central banks cannot*** assume that a ***cut in their target policy rate*** will ***ease the financial conditions*** that influence the economy.
- ***Central banks*** must always take into account the **workings of the monetary policy transmission mechanism** in order to ***achieve*** their goals of ***economic and price stability***.

The Challenges Modern Monetary Policymakers Face

The Challenges Modern Monetary Policymakers Face

- **Stock prices** and **property values** have a ***tendency*** to go through **boom and bust cycles**.
- Policymakers' ***options*** are **limited**
- The ***nominal interest rate*** cannot ***fall below*** the ***effective lower bound***.

Booms and Busts in Property and Equity Prices

Booms and Busts in Property and Equity Prices

- **Bubbles** are damaging because the **wealth effects** they create *cause* **consumption** *to* ***surge*** and ***then contract*** just as rapidly.
  - Bubbles are identified after the fact by a **sharp rise** then a **sharp decline** in ***prices***.
- The **collapse of the Internet bubble** in the **1990s** had a *relatively* ***minor impact*** because intermediaries faced ***limited credit exposure*** and ***remained well capitalized***.
- While the ***loss of capital*** in the financial system ***in 2007-2009*** could have ***led to catastrophe*** without *extraordinary government actions*.

Booms and Busts in Property and Equity Prices

- Proponents of a *policy of "leaning against bubbles"* say that ***stabilizing inflation and real growth*** means **raising interest rates** to ***discourage bubbles*** from developing.
- ***Opponents of this interventionist*** view claim that **bubbles** are **too difficult to identify *when they are developing.***
  - Central banks should **wait *until the bubble bursts*** and ***only then react aggressively to limit the fallout*** on the economy by cleaning up the mess.

Booms and Busts in Property and Equity Prices

- Today, the ***proper policy toolkit*** for *addressing bubbles* is not *interest rates* but the **macroprudential regulatory** approach
- According to this view, **bubbles** are a ***major threat.***
  - The best result would be to ***adjust regulatory rules*** to **inhibit *intermediaries*** from *extending* such ***risky credit*** in economic booms.

Booms and Busts in Property and Equity Prices

- This approach *still depends on* the **foresight and judgment of regulators** to limit the ***buildup of an asset price bubble***.
- Using **interest rates** to **combat *asset price bubbles*** now is *more likely* to be viewed as a ***backup*** approach for *extreme circumstances*.

Deflation and the Effective Lower Interest-Rate Bound

Deflation and the Effective Lower Interest-Rate Bound

- **Nominal interest rates** can **not** be ***deeply negative***.
  - There is an ***effective lower bound (ELB)*** that is **below zero** due to transactions costs
  - Investors can ***always hold cash***, so ***bonds must have yields*** above the ELB to attract bondholders.
- Such risk which policymakers have ***no scope to lower rates further***, **has concerned central banks** *since Japan's experience in the 1990s*.

Deflation and the Effective Lower Interest-Rate Bound

- Think about the *consequences of a shock* that ***depresses aggregate expenditure***.
  - The **dynamic aggregate demand curve** shifts to the ***left***.
  - **Real output *falls below* potential** - a *recessionary output gap* putting ***downward pressure*** on **inflation**.
  - **Monetary policymakers** would normally react by ***cutting interest rates***.
  - This would *increase spending*, ***raise*** **real output**, and ***eliminate*** the **output gap**.

Deflation and the Effective Lower Interest-Rate Bound

- What if, when the shock occurs, **inflation is zero** and the **policy interest rate** that central bankers control is ***at the ELB***?
  - The **decline in aggregate demand** still *drives* ***real output*** *below* ***potential output***.
  - There is ***downward pressure on inflation***.
  - But when **inflation** ***falls***, it drops ***below zero*** so that, on average, ***prices are falling***.
- This result is **deflation**.

Deflation and the Effective Lower Interest-Rate Bound

- When there is a **recessionary output gap**, **current inflation** is ***below*** *expected inflation* and **expected inflation *falls***, which drives deflation down even more.
- Because the **nominal interest rate** is at the **ELB**, policymakers cannot counter the ***worsening deflation*** by ***lowering*** it.

Deflation and the Effective Lower Interest-Rate Bound

- The **interest rate stays near zero** and could ***not be negative***.
- **Inflation *keeps falling*, real interest rate** *thus* ***increases***
- The *effects of the shock* could be ***amplified*** *through a* ***deterioration in confidence and expectations*** *of declining prices*, ***exacerbating*** *the initial* **deflationary impulse** *and* **recessionary output gap**.
- The result is ***deflationary spiral*** in which *deflation grows* worse and worse.

Deflation and the Effective Lower Interest-Rate Bound

- **Deflation** makes it *more difficult* for businesses to ***obtain financing for new projects***.
  - **Without investment** there is ***no growth***.
- **Deflation**, therefore, **increases** the ***real value*** of a **firm's liabilities** without *affecting the* ***real value of its assets.***

Deflation and the Effective Lower Interest-Rate Bound

Policymakers can minimize the chances of this sort of catastrophe:

1. They can ***set*** their **inflation** objective with the ***perils of deflation*** *in mind*
2. They can ***act boldly*** when there is ***even an indication of deflation***
3. They can ***utilize*** **unconventional policy tools**

Deflation and the Effective Lower Interest-Rate Bound

- ***Reducing*** the **interest rate *significantly*** and ***rapidly*** *when faced with* the ***possibility of hitting the ELB*** is "**acting preemptively**"
- Central bankers can use ***unconventional policy tools*** that *include*:
  - **Forward guidance**
  - **Quantitative easing**
  - **Targeted asset purchases**

Deflation and the Effective Lower Interest-Rate Bound

- Central bankers are *very reluctant to use* ***unconventional policy tools***
  - Continued uncertainty about ***how and why they work*** and ***how to apply them effectively***
  - ***Policy exit*** may be difficult

The Evolving Structure of the Financial System

The Evolving Structure of the Financial System

- **Changes in financial structure** will ***change*** the **impact** of **monetary policy**.
- The *shift away* from *bank financing* toward ***direct financing*** *in the capital markets* means that the ***bank-lending channel*** of monetary policy ***became less important*** in the decades before the financial crisis.

The Evolving Structure of the Financial System

- The **decline** of *banks as a* **source of finance** was accompanied by a ***rise*** in the importance of ***securities markets*** and ***shadow banks***.
- The ***financial crisis*** that ended in 2009 has **interrupted** the **trend** *toward* ***capital market finance:***
- **Securitization** has ***declined or slowed*** since 2006.

The Evolving Structure of the Financial System

- **Effective securitization** can lead to a *better diversification of risk.*
- **Macroprudential regulation** will *tend to* ***restrain*** the future pace of **securitization**.
- The *changing* ***effectiveness*** of ***conventional monetary policy*** likely will require central bankers to **update** their ***unconventional policy tools.***

The Evolving Structure of the Financial System

- As the characteristics of money, banks, and loans evolve, **we will all adjust**:
  - ***How we pay*** for our purchases
  - ***How we hold our wealth***
  - ***How we obtain credit***

End of lecture